

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A data transmission system comprising:
a transmitting apparatus that transmits a scene description; and
a receiving apparatus that constructs a scene according to ~~said~~the scene description;
wherein ~~said~~the transmitting apparatus comprises:

an elementary stream (ES) processing means that transfers at least one ES,
which conforms to at least one of a transmission line state and a request issued from
the receiving apparatus.

a scene description processing means that transfers and modifies a scene
description, ~~which to conform[[s]] to at least one of a transmission line state and a
request issued from said receiving apparatus, a corresponding quality of the at least
one ES from the ES processing means by adjusting the properties assigned to the ES
within the scene description, and~~

wherein the transmitting apparatus appends time information to the at least one ES and
~~said~~the scene description; and

wherein ~~said~~the receiving apparatus monitors ~~said~~the time information sent from ~~said~~the
transmitting apparatus and detects a delay in transmission using ~~said~~the time information; and

~~wherein said scene description comprises at least one node and at least one signal used to
construct said scene, each said node describing an object or a relationship between objects.~~

2-13. (Cancelled)

14. (Currently Amended) A data transmitting method for transmitting a scene description
that describes ~~the structures at least of one or more signals~~ elementary stream (ES) to be used to
construct a scene, and constructing the scene according to the scene description, comprising:

transmitting at least one ES, which conforms to at least one of a transmission line state and a
request issued from the receiving side;

transmitting a scene description that conforms to the at least one ~~of a transmission line state
and a request issued from a receiving side~~ ES;

appending time information to ~~said~~the transmitted scene description; and
monitoring ~~said~~the time information to detect delays in transmission using ~~said~~the time information.

15-26. (Cancelled)

27. (Currently Amended) A data transmitting apparatus for transmitting a scene description that describes ~~the structures of~~ at least one elementary stream (ES) ~~or more signals~~ used to construct a scene, comprising:

an ES processing means that transfers at least one ES, which conforms to at least one of a transmission line state and a request issued from a receiving side;

a scene description processing means for transferring and modifying a scene description, in accordance with the at least one ES from the ES processing means, by adjusting the properties assigned to the ES within the scene description of a transmission line state and a request issued from a receiving side, and time information appended to said scene description.

28. (Currently Amended) A data transmitting apparatus according to Claim 27, further comprising:

a memory means in which a plurality of predefined scene descriptions are stored corresponding to a plurality of possible qualities of the at least one ES;

wherein ~~said~~the scene description processing means selects ~~said~~the scene description from among the plurality of scene descriptions stored in ~~said~~the memory means, and transmits the ~~said~~ scene description.

29. (Currently Amended) A data transmitting apparatus according to Claim 27, further comprising:

a memory means in which at least one predefined scene description ~~[[s are]]~~ is stored;

wherein ~~said~~the scene description processing means converts a predefined scene description read from ~~said~~the memory means into ~~said~~the scene description based on the corresponding quality of the at least one ES, and transfers ~~said~~the scene description.

30. (Currently Amended) A data transmitting apparatus according to Claim 27, wherein ~~said~~the scene description processing means encodes ~~said~~the scene description and transmits the resultant ~~said~~the scene description.

31. (Cancelled)

32. (Currently Amended) A data transmitting apparatus according to Claim 27, ~~further comprising~~

~~a signal processing means that transfers one or more signals used to construct a scene, which conform to said at least one of said transmission line state and said request issued from said receiving side;~~

wherein ~~said~~the scene description processing means transfers ~~said~~the scene description, which comprises information necessary for ~~said~~the receiving side to decode the ~~signals at least one ES transferred from said~~the signal ES processing means.

33. (Currently Amended) A data transmitting apparatus according to Claim 27, ~~further comprising:~~

~~a signal processing means that transfers one or more signals used to construct a scene, which conform to said at least said transmission line state and said request issued from said receiving side;~~

wherein ~~said~~the scene description processing means transfers a scene description that specifies whether the ~~signals at least one ES is~~ to be used to construct a scene are used or not.

34. (Currently Amended) A data transmitting apparatus according to Claim 27, wherein ~~said~~the scene description processing means transfers a scene description whose complexity

conforms to ~~said~~the at least one ES of ~~said transmission line state and said request issued from a receiving side.~~

35. (Currently Amended) A data transmitting apparatus according to Claim 34, wherein ~~said~~the scene description processing means transfers a scene description, wherein a first scene part within a scene is replaced with a second scene part whose complexity is different from the complexity of the first scene part, in accordance with ~~said~~the at least one ES of ~~said transmission line state and said request issued from said receiving side.~~

36. (Currently Amended) A data transmitting apparatus according to Claim 34, wherein ~~said~~the scene description processing means transfers a scene description, in which a scene part within a scene is removed or a new scene part is added to the scene, in accordance with ~~said~~the at least one ES of ~~said transmission line state and said request issued from said receiving side.~~

37. (Currently Amended) A data transmitting apparatus according to Claim 34, wherein ~~said~~the scene description processing means modifies a quantization step, in which a scene description is encoded, in accordance with ~~said~~the at least one of ~~said~~the transmission line state, ~~and said~~the request issued from ~~said~~the receiving side, ~~and the at least one ES.~~

38. (Currently Amended) A data transmitting apparatus according to Claim 27, wherein ~~said~~the scene description processing means divides a scene description into a plurality of decoding units in accordance with ~~said~~the at least one of ~~said~~the transmission line state, ~~and said~~the request issued from ~~said~~the receiving side, ~~and the at least one ES.~~

39. (Currently Amended) A data transmitting apparatus according to Claim 38, wherein ~~said~~the scene description processing means adjusts a time interval between time instants at which ~~said~~the receiving side decodes each of the plurality of decoding units into which a scene description is divided.

40. (Currently Amended) A data transmitting method for transmitting a scene description that describes the properties of structures of one or more signals at least one elementary stream (ES) used to construct a scene, comprising:

transmitting at least one ES, which conforms to at least one of a transmission line state and a request issued from the receiving side;

transmitting a scene description in accordance with the corresponding quality of the at least one ES~~at least one of said transmission line state and said request issued from a receiving side is transmitted;~~

appending time information to at least one of said the transmitted scene description and the at least one ES.

41. (Currently Amended) A data transmitting method according to Claim 40, further comprising:

storing a plurality of predefined scene descriptions corresponding to a plurality of possible qualities of the at least one ES; and

selecting a the scene description from among the plurality of scene descriptions.

42. (Currently Amended) A data transmitting method according to Claim 40, further comprising:

storing at least one predefined scene description[[s]]; and

converting a predefined scene description into another scene description corresponding to the quality of the at least one ES.

43. (Currently Amended) A data transmitting method according to Claim 40, further comprising[[:]]encoding said the scene description.

44. (Cancelled)

45. (Currently Amended) A data transmitting method according to Claim 40, further comprising:

~~transmitting one or more signals used to construct a scene in accordance with at least one of said transmission line state and said request issued from said receiving side;~~

wherein ~~a~~the scene description ~~that~~ further comprises information necessary for ~~said~~the receiving side to decode the ~~transmitted signals~~ at least on ES.

46. (Currently Amended) A data transmitting method according to Claim 40, further comprising:

~~transmitting one or more signals used to construct a scene in accordance with at least one of said transmission line state and said request issued from a said receiving side; and~~

wherein ~~said~~the scene description specifies whether to use ~~said~~the ~~one or more signals~~ at least one ES.

47. (Cancelled)

48. (Currently Amended) A data transmitting method according to Claim ~~47~~40, further comprising a first scene part within a scene with a second scene part, whose complexity differs from the complexity of the first scene part, in accordance with the at least one ES ~~of said transmission line state and said request issued from said receiving side~~.

49. (Currently Amended) A data transmitting method according to Claim ~~47~~40, further comprising modifying ~~said~~the scene description, by removing a scene part within a scene or adding a new part to the scene, in accordance with the at least one ES ~~of said transmission line state and said request issued from said receiving side~~.

50. (Currently Amended) A data transmitting method according to Claim ~~47~~40, further comprising ~~[[;]]~~ modifying a scene description encoding step is accordance with a quantization step

in accordance with the at least one of ~~said~~the transmission line state ~~and, said~~the request issued from ~~said~~the receiving side, and the at least one ES.

51. (Currently Amended) A data transmitting method according to Claim 40, further comprising dividing ~~said~~the scene description into a plurality of decoding units in accordance with at least one of ~~said~~the transmission line state ~~and, said~~the request issued from a ~~said~~the receiving side, and the at least one ES.

52. (Previously presented) A data transmitting method according to Claim 51, comprising adjusting the division step in accordance with a time interval between time instants at which a receiving side decodes each of the plurality of decoding units.

53-77. (Canceled)

78. (Currently Amended) A data transmission system comprising:
a transmitting apparatus that transmits a scene description; and
a receiving apparatus that constructs a scene according to ~~said~~the scene description;
wherein ~~said~~the transmitting apparatus comprises:

a elementary signal (ES) processor that transfers at least one ES used to
construct the scene, in accordance to the transmission capacity, and

a scene description processor that transmits a scene description and a time
information, ~~said~~the scene description conforming to a transmission capacity, ~~said~~the
transmission capacity being derived from at least one of a transmission line state, a
request issued from ~~said~~the receiving apparatus, or known available resources of
~~said~~the receiving apparatus;

wherein ~~said~~the receiving apparatus monitors ~~said~~the time information sent from ~~said~~the
transmitting apparatus to detect a delay in the transmission; and

wherein ~~said~~the scene description includes objects, the objects comprises-comprising at least one node and at least one signal used to construct ~~said~~the scene, each ~~said~~the node describing an object or a relationship between objects.

79-94. (Cancelled)

95. (New) A data receiving apparatus for receiving a scene description that describes at least one elementary stream (ES) used to construct a scene, comprising:

an ES decoding unit that receives at least one ES, which conforms to at least one of a transmission line state and a request issued from the data receiving apparatus;

a scene description decoding unit for constructing a scene description, in which the properties assigned to the ES within the scene description conform to the at least one ES.

96. (New) A data receiving apparatus according to Claim 95, wherein the scene description is transmitted from a server side which includes a scene description processing unit that selects the scene description from among the plurality of scene descriptions stored in a memory, and transmits the scene description.

97. (New) A data receiving apparatus according to Claim 95, wherein the scene description is transmitted from a server side which converts a predefined scene description read from a memory into the scene description based on the corresponding quality of the at least one ES, and transmits the scene description.

98. (New) A data receiving apparatus according to Claim 95, wherein the scene description specifies whether the at least one ES is to be used to construct the scene.

99. (New) A data receiving apparatus according to Claim 95, wherein the scene description complexity conforms to the at least one ES.

100. (New) A data receiving apparatus according to Claim 99, wherein the scene decoding unit receives a scene description, wherein a first scene part within a scene is replaced with a second scene part whose complexity is different from the complexity of the first scene part, in accordance with the at least one ES.

101. (New) A data receiving apparatus according to Claim 99, wherein the scene description decoding unit receives a scene description, in which a scene part within a scene is removed or a new scene part is added to the scene, in accordance with the at least one ES .

102. (New) A data receiving apparatus according to Claim 99, wherein the scene description is received in portions encoded based on a quantization step, in accordance with the at least one of the transmission line state, a request issued from the data receiving apparatus, and the at least one ES.

103. (New) A data receiving apparatus according to Claim 95, wherein the scene description is received in a plurality of divided parts encoded by a transmitting apparatus in accordance with the at least one of the transmission line state, the request issued from the receiving side, and the at least one ES.

104. (New) A data receiving apparatus according to Claim 103, wherein the scene transmitting apparatus adjusts a time interval between time instants at which the data receiving apparatus decodes each of the plurality of divided parts into which the scene description is divided.

105. (New) A data receiving method for receiving a scene description that describes the properties of at least one elementary stream (ES) used to construct a scene, comprising:

receiving at least one ES, which conforms to at least one of a transmission line state and a request issued from a receiving side;

receiving a scene description in accordance with the corresponding quality of the at least one ES;

wherein time information is appended to at least one of the received scene description and the at least one ES.

106. (New) A data receiving method according to Claim 105, wherein the scene description is selected from among a plurality of predefined scene descriptions corresponding to a plurality of possible qualities of the at least one ES.

107. (New) A data receiving method according to Claim 105, wherein the scene description is created by converting a predefined scene description based on the corresponding quality of the at least one ES.

108. (New) A data receiving method according to Claim 105, wherein the scene description further comprises information necessary for the receiving side to decode the at least one ES.

109. (New) A data receiving method according to Claim 105, wherein the scene description specifies whether to use the at least one ES.

110. (New) A data receiving method according to Claim 105, wherein in the scene description, a first scene part is replaced with a second scene part, whose complexity differs from the complexity of the first scene part, in accordance with the at least one ES .

112. (New) A data receiving method according to Claim 105, wherein in the scene description, a scene part is removed or added, in accordance with the at least one ES .

113. (New) A data receiving method according to Claim 105, wherein the scene description is encoded in a quantization step, in accordance with the at least one of the transmission line state, the request issued from the receiving side, and the at least one ES.

114. (New) A data receiving method according to Claim 105, wherein the scene description is divided into a plurality of decoding units in accordance with at least one of the transmission line state, the request issued from the receiving side, and the at least one ES.

115. (New) A data receiving method according to Claim 114, wherein the scene description is divided in accordance with a time interval between time instants at which a receiving side decodes each of the plurality of decoding units.